

NEVADA DIVISION OF ENVIRONMENTAL PROTECTION

FACT SHEET

(Pursuant to NAC 445A.236)

Permittee Name: Alamo Sewer & Water G.I.D.
P.O. Box 418
Alamo, NV 89001

Permit Number: NEV30019

Location: Town of Alamo Wastewater Treatment Facility (WWTF), Lincoln County
Located in the southwestern town limits of Alamo
Latitude: 37° 21' 28"N, Longitude: 115° 10' 17"W
Township 7S, Range 61E, SW¼ of NW¼ of Section 8

Wellhead Protection Area: The WWTF is located within the 3,000 feet, Drinking Water Protection Area 3, of four public supply wells for the Alamo Sewer & Water G.I.D. The WWTF is located down gradient of the wellhead capture zones for these supply wells.

General: The Alamo WWTF was constructed in 1975. The facility consists of a lift station, an aerated-baffled treatment pond and twin percolation basins for effluent disposal. In 2004, the collection system, lift station, flow meter and standby generator were upgraded. A baffle curtain was added to the original clay-lined treatment pond to create two treatment compartments during this upgrade. However, the clay-lined pond was not relined with a synthetic liner nor cleaned to remove any sludge buildup at that time. A recent NDEP inspection of this facility in May 2008 indicates likely sludge buildup within the treatment pond, which can be a source of nutrient (nitrogen) in the effluent. Effluent from the treatment pond is discharged to the shallow groundwater in the percolation basins. Depth to groundwater down gradient of these basins is 19 ft below ground surface.

Flow: Permitted flow capacity is 0.071 MGD. Present flow averages 0.044 MGD or 62% of available capacity.

Receiving Water Characteristics: Monitoring well MW-1 is installed 260 ft southeast and down gradient of the percolation basins. The current State nitrate limit of 10 mg/l in MW-1 is exceeded by the five-year average nitrate level of 10.3. mg/l. The impact to groundwater is likely due to a combination of treatment pond leakage, sludge buildup (i.e., nutrient source) and effluent disposal.

Five-Year DMR Analysis:

- **CBOD:** The five-year average CBOD (Inhibited BOD) level in the effluent is 73.2 mg/l. The CBOD limit of 45 mg/l was exceeded in 11 of the past 20 monitoring quarters. The WWTF is unable to consistently reduce wastewater organic contaminant levels to the required secondary treatment standard for pond systems.
- **TSS:** The five-year average TSS (Total Suspended Solids) level in the effluent is 85.6 mg/l. The TSS limit of 90 mg/l was exceeded in 7 of the past 20 monitoring quarters. The DMR data does not provide an explanation for permit limit excursions, but NDEP likely attributes these

exceedances to excess algae growth and/or insufficient settling of wastewater solids in the treatment pond.

- *TN*: For the permit renewal, a proposed Total Nitrogen (TN) groundwater standard of 10 mg/l replaces the current nitrate standard, which will then be addressed on a Monitor and Report basis. The current TN level in MW-1 is 53.9 mg/l (First Quarter 2008). This level exceeds the proposed standard of 10 mg/l. Similar to nitrate contamination, the impact to groundwater TN level is likely due to a combination of treatment pond leakage, sludge buildup and effluent disposal.

Proposed Effluent Limitations and Special Conditions:

Table 1: Plant Discharge Limitations

PARAMETER	DISCHARGE LIMITATIONS		MONITORING REQUIREMENTS	
	30-Day Average	Daily Maximum	Measurement Frequency	Sample Type
Flow, MGD (Influent)	0.071		Continuous	Flow Meter
CBOD, mg/L (Influent)	Monitor & Report		Quarterly	Discrete
CBOD, mg/L (Effluent)	45		Quarterly	Discrete
TSS, mg/L (Influent)	Monitor & Report		Quarterly	Discrete
TSS, mg/L (Effluent)	90		Quarterly	Discrete
pH, Std. Units (Effluent)	Between 6.0 & 9.0		Quarterly	Discrete

1. Influent samples shall be collected prior to discharge into the aerated treatment pond.
2. Effluent samples shall be collected after overflow from the aerated treatment pond but prior to discharge into the percolation ponds.

Table 2: Groundwater Monitoring (MW-1)

PARAMETER	GROUNDWATER LIMITATIONS	MONITORING REQUIREMENTS	
		Measurement Frequency	Sample Type
TDS, mg/L	Monitor & Report	Quarterly	Discrete
Chlorides, mg/L	Monitor & Report	Quarterly	Discrete
Nitrate as N, mg/L	Monitor & Report	Quarterly	Discrete

Total Nitrogen as N, mg/L	10.0	Quarterly	Discrete
Depth to Groundwater, ft	Monitor & Report	Quarterly	Field Measurement
Groundwater Elevation, ft	Monitor & Report	Quarterly	Field Measurement

1. Groundwater samples shall be taken only after purging at least three (3) well volumes of groundwater from the monitoring well.

Schedule of Compliance: The Permittee shall submit the following item to the Division for review and approval (**all compliance deliverables shall be addressed to the attention of the Compliance Coordinator, Bureau of Water Pollution Control**):

- Within ninety (90) days of the permit's issuance date, the Permittee shall submit its engineer's report (Nevada P.E.) for a plan and schedule to upgrade this facility including nitrogen reduction in the discharged effluent.

Procedures for Public Comment: The Notice of the Division's intent to issue (renew) a discharge permit for the Alamo WWTF, subject to the conditions contained within the permit is being sent to the **Lincoln County Record** and **Las Vegas Review-Journal** for publication. The notice is being mailed to interested persons on our mailing list. Anyone wishing to comment on the proposed permit can do so in writing for a period of thirty (30) days following the date of publication of the public notice in the newspaper. The comment period can be extended at the discretion of the Administrator. The deadline date and time by which all comments are to be submitted (via postmarked mail or time-stamped faxes, e-mails, or hand-delivered items) to the Division is **Friday, August 1, 2008, by 5:00 P.M.**

A public hearing on the proposed determination can be requested by the applicant, any affected State, any affected interstate agency, the Regional Administrator or any interested agency, person or group of persons.

The request must be filed within the comment period and must indicate the interest of the person filing the request and the reasons why a hearing is warranted.

Any public hearing determined by the Administrator to be held must be conducted in the geographical area of the proposed discharge or any other area the Administrator determines to be appropriate. All public hearings must be conducted in accordance with NAC 445A.238.

The final determination of the Administrator may be appealed to the State Environmental Commission pursuant to NRS 445A.605.

Proposed Determination: The Division has made the tentative determination to issue (renew) the proposed groundwater discharge permit for a period of five (5) years with the requirement for an engineering plan and schedule to upgrade the treatment facility and reduce nitrogen loading into the groundwater.

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Date: June 23, 2008